

EXHAUST TURBINE APPARATUS

Abstract

Apparatus and method for supplying sealing air to an exhaust turbine (15) that interacts with an internal combustion engine for turbo-compound operation in a vehicle. Exhaust gases from the internal combustion engine are received in an exhaust system having a supercharger turbine (11) and which drives a compressor (13) for the engine combustion air. Residual energy in the exhaust gas flow is recovered via the exhaust turbine (15) for transfer to the crankshaft of the internal combustion engine. The exhaust turbine (15) is supported in a bearing housing (32), which is fed with sealing air via a fluid line (36). The exhaust system includes an exhaust brake throttle (16) having an exhaust gas pressure regulator (22) for regulating the exhaust brake pressure. The exhaust gas pressure regulator (22) is connected via a compressed air line (28) to a compressed air source (29, 30), which can be connected in parallel to the bearing housing (32) via a prioritizing valve (35) and a compressed air line (36).